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OIPE

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/852,000

DATE: 12/04/2001
 TIME: 11:26:10

Input Set : A:\So50052u.txt
 Output Set: N:\CRF3\11212001\I852000.raw

ENTERED

3 <110> APPLICANT: Osumi, Takashi
 4 Tsukamoto, Toshiro
 5 Tsukamoto, Noriyo
 6 Yamasaki, Masatoshi
 8 <120> TITLE OF INVENTION: GREEN FLUORESCENT PROTEINS AND BLUE FLUORESCENT
 9 PROTEINS
 11 <130> FILE REFERENCE: 046124-5005-US
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/852,000
 C--> 14 <141> CURRENT FILING DATE: 2001-05-10
 16 <150> PRIOR APPLICATION NUMBER: JP 026418/1998
 17 <151> PRIOR FILING DATE: 1998-01-23
 19 <150> PRIOR APPLICATION NUMBER: US 09/121,539
 20 <151> PRIOR FILING DATE: 1998-07-24
 22 <150> PRIOR APPLICATION NUMBER: US 09/615,655
 23 <151> PRIOR FILING DATE: 2000-07-13
 25 <160> NUMBER OF SEQ ID NOS: 14
 27 <170> SOFTWARE: PatentIn Ver. 2.0
 29 <210> SEQ ID NO: 1
 30 <211> LENGTH: 238
 31 <212> TYPE: PRT
 32 <213> ORGANISM: Aequorea victoria
 34 <220> FEATURE:
 35 <223> OTHER INFORMATION: Green fluorescent protein
 37 <400> SEQUENCE: 1
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 42 20 25 30
 44 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
 45 35 40 45
 47 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
 48 50 55 60
 50 Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
 51 65 70 75 80
 53 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
 54 85 90 95
 56 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
 57 100 105 110
 59 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
 60 115 120 125
 62 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
 63 130 135 140
 65 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
 66 145 150 155 160
 68 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
 69 165 170 175
 71 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro

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72          180          185          190
74 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
75          195          200          205
77 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
78          210          215          220
80 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
81 225          230          235
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87 <213> ORGANISM: Artificial Sequence
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90 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
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99 <213> ORGANISM: Artificial Sequence
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109 <211> LENGTH: 29
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111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
116 <400> SEQUENCE: 4
117 gctggagtac aactcaaca gccacaacg 29
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121 <211> LENGTH: 29
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
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128 <400> SEQUENCE: 5
129 cgttgtggct gttgaagttg tactccagc 29
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133 <211> LENGTH: 28
134 <212> TYPE: DNA
135 <213> ORGANISM: Artificial Sequence
137 <220> FEATURE:
138 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
140 <400> SEQUENCE: 6
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144 <210> SEQ ID NO: 7
145 <211> LENGTH: 28

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159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
164 <400> SEQUENCE: 8
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217 <211> LENGTH: 28
218 <212> TYPE: DNA

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219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
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228 <210> SEQ ID NO: 14
229 <211> LENGTH: 239
230 <212> TYPE: PRT
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: Engineered green
235     fluorescent protein
237 <400> SEQUENCE: 14
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241 Val Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly
242           20           25           30
244 Glu Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile
245           35           40           45
247 Cys Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr
248           50           55           60
250 Phe Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys
251   65           70           75           80
253 Gln His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu
254           85           90           95
256 Arg Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu
257           100          105          110
259 Val Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly
260           115          120          125
262 Ile Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr
263           130          135          140
265 Asn Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn
266   145          150          155          160
268 Gly Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser
269           165          170          175
271 Val Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly
272           180          185          190
274 Pro Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu
275           195          200          205
277 Ser Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe
278           210          215          220
280 Val Thr Ala Ala Gly Ile Thr Leu Gly Met Asp Glu Leu Tyr Lys
281   225          230          235

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/852,000

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Input Set : A:\So50052u.txt

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L:13 M:270 C: Current Application Number differs, Replaced Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date